

node is longitudinally and broadly, but not very deeply sulcated in the middle (the sulcus is deep in *C. dohrni*, Mayr, and *rogenhoferi*, Mayr). Petiole and abdomen shining and delicately reticulate; some longitudinal wrinkles on the second node.

Some erect hairs on the thorax and on the head, very few elsewhere, none at all on the tibiæ and scapi. A spaced, but regular, applied pubescence on the tibiæ, the scapi, the head, and the abdomen, very scattered elsewhere. Sibsagar.

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XII.—*On some New Indian Butterflies.*—By LIONEL DE NICE'VILLE, F. E. S.

[Received 23rd April;—Read June 2nd, 1886.]

(With Plate XI.)

Family NYMPHALIDÆ.

Subfamily SATYRINÆ.

1. LETHE BRISANDA, n. sp., Pl. XI, Fig. 13, ♀.

DESCRIPTION. FEMALE. UPPERSIDE, *both wings* castaneous. *Forewing* with rather more than the outer half fuscous, crossed from the middle of the costa to near the anal angle by a decreasing white band, which is tinged with ochreous anteriorly, its inner edge very straight and sharply defined, its outer edge less regular and blurred; two small ochreous subapical spots divided by the fifth subcostal nervule. *Hindwing* with the outer half fuscous, bearing a submarginal series of four black spots placed upon a castaneous band, the upper one large and round, the second in the subcostal interspace somewhat quadrate and extending to the inner of the two pale marginal fine lines, the third and fourth in the median interspaces small and oval; there are faint traces also of a spot in the discoidal and a geminated one in the submedian interspace. UNDERSIDE, *both wings* pale ochreous-brown. *Forewing* with two ferruginous fine lines crossing the middle of the cell, the discal band as above but somewhat lengthened posteriorly, the ground-colour within it somewhat darker than the rest of the wing, a submarginal series of four small perfect ocelli placed between the veins, made up of a white pupil, a black ring, a ring of the ground-colour, a ferruginous ring, and an outer pale ring; two fine dark marginal lines. *Hindwing* with two discal fine irregular ferruginous lines from the costa to the submedian nervule, the lower disco-cellular nervule defined with ferruginous; a submarginal series of six perfect ocelli, made up of a black white-pupilled centre, then an ochreous, then a dark brown, and lastly an outer vio-

laceous ring, the upper ocellus much the largest, the second and fourth subequal, as are also the third and sixth which are the smallest, the latter twinned; two fine dark marginal lines inwardly defined by a pale violet line and enclosing a fine ochreous line. *Cilia* pale brown throughout.

EXPANSE: ♀, 2.35 inches.

HAB.—Buxa, Bhutan.

Nearly allied to *Lethe dinarbas*, Hewitson, the female of which has not hitherto been figured or described, from which it differs on the upperside in having the ground-colour castaneous instead of pale brown, the discal band straighter and better defined, the ocelli on the hindwing smaller and blind; on the underside the ground-colour in *L. brisanda* is ochreous, in *L. dinarbas* it is pale brown washed with violascent, the forewing has four ocelli owing to the discal band being narrower, in *L. dinarbas* there are three only, on both wings in the latter the discal narrow lines are dark brown instead of ferruginous and broader and more regular. *L. brisanda* is nearly allied also to *L. hyrانيا*, Kollar, from which the castaneous ground-colour of the upperside and the much narrower discal band on the forewing will readily distinguish it.

A figure of *L. dinarbas*, female, is given (fig. 4) from a specimen from Native Sikkim in Mr. Otto Möller's collection.

The type and only known specimen of *L. brisanda* is in the collection of Mr. A. V. Knyvett, to whom I am indebted for the opportunity of figuring and describing it. The male has yet to be discovered: it will probably prove to be closely allied to *L. dinarbas*, which also occurs at Buxa, and to *L. hyrانيا*.

#### Subfamily Nymphaliniæ.

#### 2. NEPTIS KUHASA, n. sp., Pl. XI, Fig. 12, ♂.

DESCRIPTION. MALE. UPPERSIDE, *both wings* black with orange markings. *Forewing* with a broad discoidal streak bounded below by the median nervure, obscurely separated from the large triangular spot beyond by two fine black lines; a broad subapical patch well-separated from a rather less broad discal one which reaches the inner margin, and is strongly constricted at the first median nervule; a prominent submarginal somewhat lunate band, with a very obscure and fine pale marginal line. *Hindwing* with a broad straight even discal band, and a narrower (about one-third the width) submarginal similar band; marginal line as in forewing. UNDERSIDE, *both wings* with the ground-colour much paler, and the bands also paler, ochreous rather than orange. *Forewing* marked as above. *Hindwing* with an additional ochreous band at the base of the costal margin, the discal and submarginal bands broader

(much reducing thereby the width of the band of the ground-colour between them), the outer margin broadly fuscous bearing a prominent ochreous line. FEMALE, *both wings* slightly paler. *Forewing* with the apex less produced. *Hindwing* with the discal band narrower, the submarginal band wider than in the male. UNDERSIDE with the same differences as above.

EXPANSE: ♂, 1·9; ♀, 2·0 inches.

HAB.—Cachar.

*N. kuhasa* differs from Upper Tenasserim specimens of *N. sattanga* in both sexes in the submarginal band on the upperside of the hindwing being narrower; the band of the ground-colour on the underside of the hindwing between the discal and submarginal ochreous bands is twice as wide, and in addition the outer margin of that wing is broadly fuscous, bearing a prominent ochreous line. In *N. sattanga* the margin is equally broadly ochreous inwardly bounded by a narrow black line, the extreme margin being defined by a very fine black line.

Mr. Wood-Mason took one male on the 29th July, and two females on the 8th August at Irangmara in Cachar, which specimens are now in the Indian Museum, Calcutta.

### 3. NEPTIS BURMANA, n. sp., Pl. XI, Fig. 9, ♂.

DESCRIPTION. MALE. UPPERSIDE, *both wings* black with prominent pure white markings. *Forewing* with the discoidal streak narrow, deeply indented at the end of the cell; the discal series of spots large and well-separated, the submarginal macular band distinct, with a pale line on either side. *Hindwing* with the discal band somewhat broad, straight, and even, followed by a pale line, the submarginal white macular band prominent, with a pale line beyond. UNDERSIDE, *both wings* dull ferruginous. *Forewing* with the triangular spot less prominently separated from the discoidal streak beyond, and the pale lines on either side of the submarginal macular band more distinct. *Hindwing* with a broad white basal band, two marginal white lines (there is only one pale line on the upperside), other markings as above.

EXPANSE: 2·4 inches.

HAB.—Upper Tenasserim.

Nearest to *N. cartica*, Moore, from which it differs on the upperside in having all the markings prominent and pure white; in *N. cartica* the markings are all obscure and tinged with fuliginous, except the discal band of the hindwing and the four spots on the forewing in continuation, which are white; the submarginal band also on the hindwing is more macular in *N. burmana*; and on the underside there are two marginal lines on the hindwing, in *N. cartica* there is only one, whereby the width



of the band of the ground-colour between the discal and submarginal bands in that species is increased.

There are two male specimens of *N. burmana* in Major Marshall's collection, both taken by Captain C. T. Bingham, one in the Donat range in January, the other at Sekkan, Thoungyeen, in February.

### Family LEMONIIDÆ.

#### Subfamily NEMEOBIINÆ.

#### 4. ABISARA CHELA, n. sp., Pl. XI, Fig. 7, ♂.

DESCRIPTION. MALE. UPPERSIDE, *both wings* dark fuscous brown. *Forewing* with an oblique white discal band from the middle of the costa to about the middle of the submedian interspace, variable in width; a submarginal narrow white line, sometimes distinct throughout its length, at others blurred in the middle, but always ending in a distinct white spot at the costa; one or two short fine marginal white lines at the anal angle. *Hindwing* with two submarginal rounded black spots divided by the discoidal nervule, the upper one the smaller and outwardly circled with white, the lower one marked anteriorly and posteriorly with white; the outer portion of the discoidal and third median nervules orange; three somewhat indistinct black lunular spots on the margin in the median and submedian interspaces, inwardly defined with a pale line, the spot in the submedian interspace geminated; two fine interrupted white marginal lines; tail short and marked with white; an ill-defined discal pale band, inwardly sharply defined, outwardly blurred. UNDERSIDE, *both wings* much paler, all the markings more distinct. *Forewing* with the discal and submarginal bands much broader than above, the latter always well-marked throughout its length. *Hindwing* marked as above, but the space from the discal band to the margin irrorated with white, the outer portion of all the veins orange. FEMALE. UPPERSIDE, *both wings* paler than in the male, tinged throughout with ferruginous, the veins of the *hindwing* more broadly marked with orange. UNDERSIDE with the same differences as above.

EXPANSE: ♂, 1.75 to 1.90; ♀, 1.90 inches.

HAB.—Sikkim, Sylhet.

Allied to *A. neophron*, Hewitson, which occurs in the same places with it, and in Sikkim in the same months; differs from it in its smaller size, usually broader discal band on the forewing, the submarginal line usually more prominent, and always ending anteriorly in a white spot, which is never the case in *A. neophron*; markedly also in the length of the tail, this part being fully twice as long in *A. neophron* as it is in *A. chela*. Through the kindness of Mr. Otto Möller I have examined a long series

of both species from Sikkim, and find that the differences given above are constant. He first recognized and pointed out to me the distinctness of these two species. For comparison I have figured (fig. 8) the upperside of a male specimen of *A. neophron* from Sikkim.

#### Family LYCÆNIDÆ.

##### 5. ALLOTINUS MULTISTRIGATUS, n. sp., Pl. XI, Fig. 11, ♂, 2, ♀.

DESCRIPTION. MALE. UPPERSIDE, *both wings* dark brown. *Forewing* with a pale brown elongated patch in the middle of the disc. *Hindwing* unmarked. UNDERSIDE, *both wings* pale ochreous brown, covered (except the inner margin of the forewing) with hundreds of very minute spots made up of a dark brown centre and fine outer pale line. *Forewing* with three similar but larger discoidal spots, and a fourth below the middle one in the submedian interspace at the point where the first median nervule is given off; a similar submarginal series. *Hindwing* crossed by four almost equi-distant series of similar spots. *Cilia* pale brown throughout. FEMALE, differs in having the forewing more truncate and the hindwing more deeply scalloped than in the male. UPPERSIDE, *forewing* with the discal patch very prominent and pale ochreous, the basal half of the costal margin narrowly pale ochreous, with four short streaks beyond. *Cilia* pale ochreous. Otherwise as in the male.

EXPANSE: ♂, 2·1; ♀, 2·0 to 2·1 inches.

HAB.—Kumaon, Sikkim, Chittagong.

In collections W. Doherty from Kumaon and Chittagong; Colonel A. M. Lang, R. E., Otto Möller, and A. V. Knyvett from Sikkim. Quite different from any species known to me.

##### 6. SATADRA TEESTA, n. sp., Pl. XI, Fig. 3, ♂.

DESCRIPTION. MALE. UPPERSIDE, *both wings* of a very deep purple, of a deeper shade than in any species of the group known to me. *Forewing* with a very narrow black marginal line. *Hindwing* with the black marginal line much broader than on the forewing; tail black, tipped with white. UNDERSIDE marked almost exactly as in *S. singla*, mihi.

EXPANSE: ♂, 1·8 inches.

HAB.—Sikkim.

Nearest to *S. singla*, from which it differs in the forewing being shorter and truncated instead of produced at the apex, the marginal black line only a quarter as broad, the colouration of both wings on the upperside of a deeper shade of purple. Obtained in the Teesta Valley, Sikkim, by Mr. Otto Möller, in whose collection the type specimen is deposited.

## Family PAPILIONIDÆ.

## Subfamily PAPILIONINÆ.

## 7. PAPILIO PAPHUS, n. sp., Pl. XI, Fig. 6, ♂.

DESCRIPTION. MALE. Intermediate between *P. glycerion*, Gray, and *P. tamerlanus*, Oberthür. Differs from the former in being larger, the forewing less profusely marked with black on the outer margin, both above and below, the hindwing having the disc crossed by a narrow black line which is joined posteriorly to a continuous subbasal line, the wing membrane between the discoidal nervule and the anal angle much broader. On the underside of the hindwing there is in *P. paphus* a series of six elongated streaks of the ground-colour divided by the nervules, from the costal nervule to the first median nervule outside the cell, these streaks being much shorter in *P. glycerion*, the ones in the costal, subcostal, and second median interspaces of that species being divided in the middle by a black bar into two spots, the anterior one in each instance being yellow, in *P. paphus* they are undivided and concolourous with the ground throughout. It differs from *P. tamerlanus* on the upperside (no figure is given of the underside of that species nor any detailed description) in having the two black bands at the end of the cell of the forewing parallel and conjoined in the middle as in *P. glycerion*, the black bands of the hindwing much less prominent. It is also a smaller insect, but agrees with it in the rounded apex of the forewing, and the width of the wing-membrane at the anal angle of the hindwing.

EXPANSE: ♂, 3 inches.

HAB.—Sikkim.

*P. glycerion* has a very wide range, occurring as far west as Simla at any rate, probably throughout the Himalayas eastwards, and in China. *P. tamerlanus* was described from Moupin, Western China, *P. paphus* is known to occur as yet only in Sikkim, specimens of it (including the type) are in Mr. Otto Möller's collection, also in that of Mr. A. V. Knyvett. For comparison, I have figured (fig. 5, ♂) the underside of a specimen of *P. glycerion* from Sikkim.

## Family HESPERIIDÆ.

## 8. HALPE GUPTA, n. sp., Pl. XI, Fig. 1, ♂.

DESCRIPTION. MALE. UPPERSIDE, *both wings* dark brown. *Forewing* with two small spots in the cell placed obliquely one above the other, obsolete in one specimen, two or three conjoined subapical minute spots, two on the disc divided by the second median nervule. *Hindwing* with some long ochreous hairs in the middle of the disc. UNDERSIDE,





NEW INDIAN BUTTERFLIES.

ALCOTT

*forewing* with the costa and apex diminishing towards the anal angle, and the whole of the *hindwing* clothed with greenish-ochreous scales. *Forewing* marked as above. *Hindwing* with two or three small pale opaque spots on the disc. *Cilia* cinereous, tipped with darker at the end of the nervules.

EXPANSE: ♂, 1.4 to 1.5 inches.

HAB.—Sikkim.

Near to *H. kumara*, mihi, differs somewhat in shape, the *forewing* being narrower and more produced at the apex, the subapical spots smaller. On the underside in *H. gupta* there are some pale spots on the disc of the *hindwing*, which are absent in *H. kumara*. The shade of the ground-colour is also quite different: in *H. kumara*, it is golden brown, in *H. gupta*, greenish-ochreous. The sexual mark is rather prominent. Mr. Otto Möller has obtained several male specimens in Sikkim.

### 9. PAMPHILA AVANTI, n. sp., Pl. XI, Fig. 10, ♂.

DESCRIPTION. MALE. UPPERSIDE, *both wings* fuscous. *Forewing* with a broad oblique subbasal streak, a more irregular and broader discal streak, both commencing close to the costa and extending to the submedian nervure where they are joined, and a subapical streak, which joins the discal one, all yellow. *Cilia* very long and brown. *Hindwing* with a large irregular-shaped spot in the middle of the disc, with two very small and indistinct ones placed outwardly beyond it. *Cilia* pale yellow. UNDERSIDE, *both wings* much paler, ferruginous-ochreous on the *hindwing*; a dark ante-ciliary line. *Forewing* with the yellow markings much as above but paler and more extended. *Hindwing* with the discal spot larger and silvery-ochreous, with a small spot in the cell near the base and another of the same size beyond the outer end of the large discal spot, a lengthened pale ochreous abdominal streak. *Antennæ* short, with a prominent club, the shaft and club fuscous above, the club tipped with ferruginous below, and the shaft pale ochreous.

EXPANSE: ♂, 1 inch.

HAB.—Native Sikkim.

There are two specimens of this very pretty and distinct species in Mr. Otto Möller's collection, obtained by his native collectors probably at high elevations in Sikkim near the passes. It is unlike any hesperid known to me.

### EXPLANATION OF PLATE XI.

- Fig. 1. *Halpe gupta*, n. sp., ♂.  
 2. *Allotinus multistrigatus*, n. sp., ♀.  
 3. *Satadra teesta*, n. sp., ♂.



- Fig. 4. *Lethe dinarbas*, Hewitson, ♀.  
 5. *Papilio glycerion*, Gray, ♂, underside.  
 6. „ *paphus*, n. sp., ♂, underside.  
 7. *Abisara chela*, n. sp., ♂, upperside.  
 8. „ *neophron*, Hewitson, ♂, upperside.  
 9. *Neptis burmana*, n. sp., ♂.  
 10. *Pamphila avanti*, n. sp., ♂.  
 11. *Allotinus multistrigatus*, n. sp., ♂.  
 12. *Nephis kuhara*, n. sp., ♂.  
 13. *Lethe brisanda*, n. sp., ♀.

XIII.—*Additional Notes on new or rare Indian Butterflies.*—By WILLIAM DOHERTY, *Cincinnati, U. S. A.* Communicated by the NATURAL HISTORY SECRETARY.

[Received April 23rd ;—Read June 2nd, 1886.]

Family DANAIDÆ.

1. EUPLÆA (TREPSICHOIS) KALINGA, n. sp.

♂. Differs from the male of *midamus*, Linn. (*linnæi*, Moore), only in the less brilliant blue of the forewing, with its spots larger and more distinctly white; and in the smaller male patch of the hindwing, extending neither to the apex of the cell nor to the lower median branch. ♀. Almost indistinguishable from the male, except in the absence of the male patch and the presence of a line of obscure whitish submarginal dots on the hindwing. A few paler streaks are usually visible on the disc of the hindwing subapically, but the cell is in all my specimens immaculate, a character in which it differs from all its allies.

I found this butterfly common on Mahendragiri and other mountains of the Ganjam District and in the Potingi Pass and the neighbouring country in the Vizagapatam district, Madras Presidency, and in the adjoining native state of Jaipur. I also saw a specimen flying in Orissa, near the southern boundary of that province. It probably represents *midamus* throughout the main line of the Eastern Ghâts from the Godâvari to the Mahânadi.

2. EUPLÆA (TREPSICHOIS) MIDAMUS, Linn.

One female taken by me in the Nicobars, on the island of Bompoka or Pâhat, the most beautiful of that beautiful cluster of islands.